

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ERROL GINSBERG, VALERIU COZLOVSKI,  
JOEL WEISSBERGER, and MARK MCWHIRTER

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Appeal 2007-0347  
Application 09/591,080<sup>1</sup>  
Technology Center 2100

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Decided: June 4, 2007

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*Before:* HOWARD B. BLANKENSHIP, MAHSHID D. SAADAT, and  
JAY P. LUCAS, *Administrative Patent Judges.*

LUCAS, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF CASE

Appellants appeal from a final rejection of claims 1 to 36, and 38-54 under authority of 35 U.S.C. § 134. The Board of Patent Appeals and Interferences (BPAI) has jurisdiction under 35 U.S.C. § 6(b).

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<sup>1</sup> Application filed June 9, 2000. Application 10/899,682, filed 7/28/04 is a continuation of this application, and has issued as Patent No. 7123616 on 10/17/2006. The real party in interest is IXIA Communications.

Appellants' invention relates to a method and apparatus for measuring the time delay for a packet to travel across a network and back to its originating point. In the words of the Appellant:

According to a second aspect of the invention, there is an electronic apparatus for determining a time delay for a round-trip transmission of data. The electronic apparatus includes an output memory portion for receiving a portion of an incoming data packet, the incoming data packet having a first source value for identifying a source of the incoming data packet, a first destination value for identifying a destination for the incoming data packet, and a first time stamp for indicating a time of transmission of the incoming data packet. The electronic apparatus further includes a data pattern management portion for managing an insertion of a data pattern into an outgoing data packet. The outgoing data packet has a second source value for identifying a source of the outgoing data packet, a second destination value for identifying a destination for the outgoing data packet, and a second time stamp for indicating a time of transmission of the outgoing data packet. The data pattern management portion is for managing the insertion of a data pattern into the outgoing data packet by (a) setting the second source value to be the first destination value, (b) setting the second destination value to be the first source value, (c) setting the second time stamp to be the first time stamp. The electronic apparatus further includes a header format portion for inserting the second source value, the second destination value and the second time stamp into the outgoing data packet.

(Br. 3).

Claim 1 is exemplary:

1. A method of determining a time delay for a round-trip transmission of data comprising:  
receiving a first data packet comprising a first IP source address, a first IP destination address, a first TCP source port, a first TCP destination port, and a first time stamp indicating a first time when the first data packet was transmitted;

inserting the first IP destination address as a second IP source address in a second data packet;  
inserting the first IP source address as a second IP destination address in the second data packet;  
inserting the first TCP destination port as a second TCP source port in the second data packet;  
inserting the first TCP source port as a second TCP destination port in the second data packet;  
inserting the first time stamp as a second time stamp in the second data packet, wherein the second time stamp is for indicating a second time when the second data packet is transmitted;  
and  
transmitting the second data packet.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Link	US 6,012,096	Jan. 4, 2000
Johnston	US 6,064,649	May 16, 2000
Anand	US 6,141,705	Oct. 31, 2000
Fletcher	US 6,321,264 B1	Nov. 20, 2001
Anand	US 6,370,599 B1	Apr. 9, 2002
Rossmann	US 6,430,409 B1	Aug. 6, 2002
Scherpbier	US 6,621,834 B1	Sep. 16, 2003
Dunlop	US 6,721,872 B1	Apr. 13, 2004

Comer, Douglas E. "Internetworking with TCP/IP Principles, Protocols, and Architecture." Vol. 1, 1995.

It is noted that the Examiner's Answer lists the Rossman patent as patent number 6,625,477. That is incorrect; the correct patent number is 6,430,409.

Rejection of Claim Group #1: The Examiner rejected claims 1 to 29, 31 to 36, and 38 to 54 under 35 U.S.C. § 103(a) for being obvious over Link.

Rejection of Claim Group #2: The Examiner rejected claim 30 under 35 U.S.C. § 103(a) for being obvious over Link in view of Fletcher.

Appellants contend that the claimed subject matter is not rendered obvious by Link because of failures in the Link patent and the Fletcher patent to disclose the claimed limitations, as will be discussed more fully below.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the Brief and the Answer for their respective details. Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Brief have not been considered and are deemed to be waived. *See* 37 C.F.R. § 1.192(a) (2004).<sup>2</sup> Appellants submit that the claims stand or fall together (Br. 4). Accordingly, we select claim 1 and claim 30 as representative with respect to each ground of rejection. *See* 37 C.F.R. § 1.192(c)(7) (2004). *See also In re McDaniel*, 293 F.3d 1379, 1383, 63 USPQ2d 1462, 1465 (Fed. Cir. 2002) (“If the brief fails to meet either requirement [of 37 C.F.R. § 1.192(c)(7)], the Board is free to select a single claim from each group of claims subject to a common ground of rejection as representative of all claims in that group and to decide the appeal of that rejection based solely on the selected representative claim.”).

We affirm the rejections.

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<sup>2</sup> We cite to the rules effective at the time of Appellants’ filing of the Brief.

## ISSUE

The issue is whether Appellants have shown that the Examiner erred in rejecting the claims under 35 U.S.C. § 103(a). The issue turns on whether the Link reference, supplemented by the Fletcher reference and other teachings used to establish the prior art, render the claims obvious under the statute. Specific other issues will be developed below.

## FINDINGS OF FACT

Findings with respect to the rejection of claims 1 to 29, 31 to 36 and 38 to 54 under 35 U.S.C. 103(a) over Link.

1. Appellants invented a method and apparatus for determining a time delay for a round-trip transmission of data across a network. (Br. 4). By this invention, a packet containing a time stamp indicating the time of transmission is sent from one location across the network to a second location. At this second location the source location value and destination location value are swapped in the packet, but the original time stamp is maintained. The packet then returns to the first location, and the time of its arrival is compared to the time of transmission stored in the packet. The difference between the times results in the time delay. (Specification 9).
2. Link teaches a method and system for determining the network latency (time delay) between two clients on a network. (Abstract). Link teaches sending a “a time-stamped network packet 80” (col. 6, l. 20) to a remote machine at a specific IP address across the network. At the destination, Client 2, the packet is sent back to the original address, Client 1, with the

original timestamp left intact. (Col 7, l. 10). We find that this necessitates a retransmission of the packet from the destination to the source. When the packet arrives back at the source, Client 1, the latency is calculated according to the equation in Col. 7, line 25:

Latency = Current Local Time – Previous Timestamp Time.

3. Link teaches connecting the clients according to the older user datagram protocol (UDP) in the Transport Layer Protocol. (Col. 6, l. 24). The Appellants claim destination and source ports in accordance with the more modern Transmission Control Protocol (TCP) protocol. (Claim 1). Examiner has presented evidence in the form of the Rossman and Scherpbier patents and the Comer article to support his contention that the newer TCP protocol can be used to modernize transmissions over the network when using the older UDP protocols when more assurance of packet receipt is required. (Answer 4, bottom, - 5, middle).
4. The Link reference clearly teaches a Network Interface Card (NIC), as indicated in Fig. 1, #53 and Col 4, line 19. Examiner supports his contention that NICs inherently have validation by reference to the Anand references, '705 (Col 2, line 30) and '599 (col 3, l. 57). We find that such validation does take place in NICs.

5. The use of field programmable gate arrays (FPGAs) in NICs is also supported by Examiners presentation of the Dunlop and Johnston patents.

Findings with respect to the rejection of claim 30 under 35 U.S.C. 103(a) over Link in view of Fletcher. In addition to the Findings of Fact mentioned with respect to the rejection of the claims of Group 1, we find the following:

6. Link, as a primary reference, teaches the system for return of a packet with the original timestamp included. (See Finding of Fact #2 above.) Link, however, does not teach certain claimed aspects of the status checking of the memory portions. These are fully described in the Fletcher reference. (See Final Rejection mailed 6/3/04, page 28).
7. Fletcher addresses a Network Performance system for gathering network performance statistics, in the same field of endeavor as the Appellants focusing on the same problem.

#### PRINCIPLES OF LAW

On appeal, Appellant bears the burden of showing that the Examiner has not established a legally sufficient basis for the rejection of the claims.

“In reviewing the [E]xaminer’s decision on appeal, the Board must necessarily weigh all of the evidence and argument.” *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

Appellants have raised the issue of Link teaching away from the claimed invention. Our guiding court has held “The prior art’s mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claims in the ‘198 application.” (*In re Fulton*, 391 F3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

With regard to the issue of whether it is obvious to use a more modern technology in substitution for an older one, we take guidance from the recent *Leapfrog Enterprises, Inc v. Fisher Price, Inc* ruling.:

“Thus we bear in mind that the goal of the claim 25 device was to allow a child to press a switch associated with a single letter in a word and hear the sound of the letter as it is used in that word. ... Accommodating a prior art mechanical device that accomplishes that goal to modern electronics would have been reasonably obvious to one of ordinary skill in designing children’s learning devices. Applying modern electronics to older mechanical devices has been commonplace in recent years.” *Leapfrog Enterprises, Inc v. Fisher Price, Inc. and Mattel, Inc.*, --- F.3d ----, 2007 WL 1345333, C.A.Fed. (Del.), May 09, 2007 (No. 06-1402.)



## ANALYSIS

Appellants contend that Examiner erred in rejecting claims 1 to 29, 31 to 36, and 38 to 54 under 35 U.S.C. § 103(a) over Link and rejecting claim 30 over Link in view of Fletcher. Reviewing the findings of facts cited above, we can address a number of the issues raised by the Appellants.

We find that the claimed subject matter, as a whole, appears to be within the teachings of the Link reference. Appellants argued that Link fails to transfer the original timestamp to the return packet, but that contention is contrary to Link's disclosure (Findings 1 and 2).

Appellants' argument concerning the distinction between the claimed TCP transport layer protocol and the disclosed UDP protocol in the Link reference is viewed as a mere substitution of a more modern technology (Finding 3), well within the skill of a practitioner in the art. Such modernization does not render the claims non-obvious, in view of the *Leapfrog* precedent.

Appellants' contention that the inclusion of the limitations concerning data validating and FPGAs likewise do not render the claims unobvious, in view of the Findings of Fact #4 and #5.

Appellants' contention that Fletcher does not address the claimed limitations is not convincing, as Fletcher demonstrates requests and responses packets that can be read on checking the status, as claimed, though the words used are different.

### CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that the Examiner did not err in rejecting claims 1 to 29, 31 to 36, and 38 to 54 under 35 U.S.C. 103(a) over Link and rejecting claim 30 under 35 U.S.C. 103(a) over Link in view of Fletcher. The rejections are affirmed.

### OTHER ISSUES

Examiner is reminded that USPTO procedures require that rejections be fully repeated in the Examiner's Answer, and that the Board not be referenced to other actions (e.g. Final Rejections) in the file. *See* MPEP 1207.02. In the interest of reasonable dispatch of this appeal the procedure was overlooked; however in future appeals an administrative remand would be appropriate.

### DECISION

The Examiner's rejection of claims 1 to 29, 31 to 36 and 38 to 54 under 35 U.S.C. 103(a) over Link and Examiner's rejection of claim 30 over Link in view of Fletcher is Affirmed.

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AFFIRMED

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